

THE NORTH AMERICAN TRUMPETER SWAN SURVEY - 1985

**Conducted and Compiled
Cooperatively by:**

**Canadian Wildlife Service
The Trumpeter Swan Society
U.S. Fish and Wildlife Service**

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The North American Trumpeter Swan Survey was conducted during late summer through early fall of 1985. It was heretofore the most complete, continent-wide effort to assess the status of this unique North American swan. The survey assessed not only the status of free-flying trumpeters but also those held in captivity.

Trumpeter swans were once distributed across the continent from the Atlantic to the Pacific. They were well known to early explorers. The trappers of the North and homesteaders of the Plains, living as they did off the resources of the land, exterminated the trumpeters from the rich heartland of the U.S. and Canada. By 1933, only 66 trumpeters could be located in the U.S., a nonmigratory population in Yellowstone National Park and adjacent high mountain valleys. Another remnant was known to breed in the area of Grande Prairie, Alberta. Though we now find records of trumpeters in Alaska from that time, they were unknown to conservationists of the 1930's and 1940's. Fear for the extinction of the trumpeter led to a substantial conservation effort based on law enforcement, public education, and habitat protection.

In 1984, a "North American Management Plan for Trumpeter Swans" was formalized by various wildlife management agencies in the U.S. and Canada. The plan established guidelines for the cooperative management of trumpeter swans over their range and called for the continental population to be assessed at 5-year intervals. Some, but not all, groups of trumpeters have been regularly surveyed; therefore, the 1985 survey represents the first complete coverage within a single year and includes for the first time an assessment of captive-held swans. The several surveys were conducted at times that were either "traditional" or most convenient to the surveyors but generally just before or shortly after the cygnets had fledged. Trumpeters were categorized as being either "adult and subadults" (the two age groups are indistinguishable by field survey methods) or "cygnets" (both fledged and unfledged).

To facilitate management of trumpeter swans over their range, they have been categorized as belonging to the Pacific Coast, Rocky Mountain, and Interior Populations. The large Pacific Coast Population (PCP) breeds mainly within Alaska and winters mainly in British Columbia and Washington. Some PCP trumpeters breed in extreme southwestern Yukon Territory and northwestern British Columbia. Restoration flocks at Turnbull National Wildlife Refuge in Washington, Malheur National Wildlife Refuge in Oregon, and the Ruby Valley in Nevada have been arbitrarily assigned to the PCP. The Rocky Mountain Population (RMP) is comprised of a nonmigratory Tristate Subpopulation that summers and winters in Montana, Idaho, and Wyoming where their boundaries join and a migratory Interior Canada

The Turnbull National Wildlife Refuge Flock in Washington continues to languish following the decline that accompanied cessation of the costly program of providing swans with winter feed and an ice-free water area. A single cygnet was raised somewhere off the refuge and was noted during fall migration.

Rocky Mountain Population

The Rocky Mountain Population numbered 1,074 in 1985, which represents a 24% increase from the 864 trumpeters during 1978-82 when survey coverage was incomplete and that which was surveyed was done in piecemeal fashion (Table 2). The greatest increases have occurred within the Interior Canada Subpopulation. The age composition for the Tristate Subpopulation was an encouraging 27% cygnets in the fall population and well above percentages experienced during most years since the early 1970's. Noticeable losses to both subpopulations occurred during the winter of 1984-85 when at least 50 swans (both trumpeters and tundra swans) on the Henry's Fork of the Snake River in Idaho succumbed to a combination of the harsh winter and lead poisoning.

Interior Population

The Interior Population numbered 209 trumpeters in 1985. It is currently comprised of the Lacreek and the Hennepin Parks Flocks and the Ontario and the Missouri experimental restoration projects (Table 3, Figure 1). Additionally, experimental restoration projects are planned for Minnesota, Michigan, and Wisconsin.

The Lacreek Flock numbered 158 trumpeters in late summer of 1985 and was little changed from the 164 in 1980 but appreciably larger than in 1975 and 1968. The breeding population is about evenly divided between South Dakota and Nebraska and appears to have either slowed or stopped expansion of its breeding range. Most swans of this flock continue to winter at Lacreek National Wildlife Refuge in South Dakota, although some are far ranging in winter. Wyoming Game and Fish Department biologists report one or two pairs of trumpeters in northeastern Wyoming during April duck surveys since 1981. These birds are believed to be part of the Lacreek Flock but have not been included in totals for this or other flocks.

Hennepin Parks began releasing captive-reared trumpeter swans in Minnesota in 1979. Although some recruitment has occurred through nesting of free-flying birds, most of the flock's expansion has been primarily the result of continued release of captive-reared swans. Swan mortality was especially high between December 1984 and December 1985 when 11 swans were lost during migration. At least five others were shot during the Minnesota hunting season, and five others simply disappeared. Wild recruitment of 7 cygnets was supplemented by release of 13 subadults to maintain a relatively stable free-flying population of 44 trumpeters.

Captive-held Swans

Trumpeter swans held in captivity for display, propagation, and scientific purposes numbered, at a minimum, 406 adults and subadults and 145 cygnets (Table 4). These trumpeters were located at 19 sites in 5 provinces in Canada and at 111 sites in 34 states and the District of Columbia in the U.S. Additional trumpeters are known to be in collections in the United Kingdom and the U.S.S.R.

Table 1. Status of the Pacific Coast Population of trumpeter swans during late summer and early autumn of 1985 as compared with estimates during prior years.

Flock/Location	Year	No. of Swans			% Cygnets	No. of Broods
		Adults & Subadults	Cygnets	Total		
<u>Alaska Flock:</u>						
Alaska	1985	7,773	1,686	9,459	18	588
	1980	5,259	2,437	7,696	32	683
	1975	2,993	1,177	4,170	28	378
	1968	1,924	923	2,847	32	257
Yukon Territory (part)	1985	32	2	34	6	1
British Columbia (part)	1985	7	4	11	36	1
<u>Turnbull National Wildlife Refuge Flock - Washington</u>						
	1985	9	1	10	10	1
	1980	4	0	4	0	0
	1975	27	14	41	34	4
	1968	39	1	40	2	1
<u>Malheur National Wildlife Refuge Flock - Oregon</u>						
	1985	36	2	38	6	2
	1980	38	19	57	33	8
	1975	45	7	52	13	3
	1968	40	11	51	22	5
<u>Ruby Valley Flock - Nevada</u>						
	1985	23	3	26	11	1
	1980	35+	15**	50+**	30	?
	1975	36**	2**	38**	5	?
	1968	20**	9**	29**	31	3
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Totals	1985	7,880	1,698	9,578	18	594
	1980	5,336*	2,471*	7,807*	32	691+*
	1975	3,101*	1,200*	4,301*	28	385+*
	1968	2,023*	944*	2,967*	32	266*

*Does not include estimates from areas in either British Columbia or Yukon Territory.

**Late fall or early winter counts which likely include an unknown number of tundra swans.

Table 3. Status of the Interior Population of trumpeter swans during late summer and early autumn of 1985 as compared with estimates during prior years.

Flock/Location	Year	No. of Swans			% Cygnets	No. of Broods
		Adults & Subadults	Cygnets	Total		
<u>Lacreek Flock -</u>						
South Dakota	1985	42	33	75	44	12
Nebraska	1985	53	30	83	36	10
South Dakota	1980	55	22	77	29	10
Nebraska	1980	65	22	87	25	8
S. Dak. & Nebr. (combined)	1975	81	35	116	30	?
S. Dak. & Nebr. (combined)	1968	43	21	64	33	?
<u>Hennepin Parks Flock -</u>						
Minnesota (free-flying)	1985	37	7	44	16	3
	1980	12	0	12	0	0
<u>Ontario Experimental Project</u>	1985	3	0	3	0	0
<u>Missouri Experimental Project</u>	1985	4	0	4	0	0
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Totals	1985	139	70	209	33	25
	1980	132	44	176	25	18
	1975	81	35	116	30	?
	1968	43	21	64	33	?

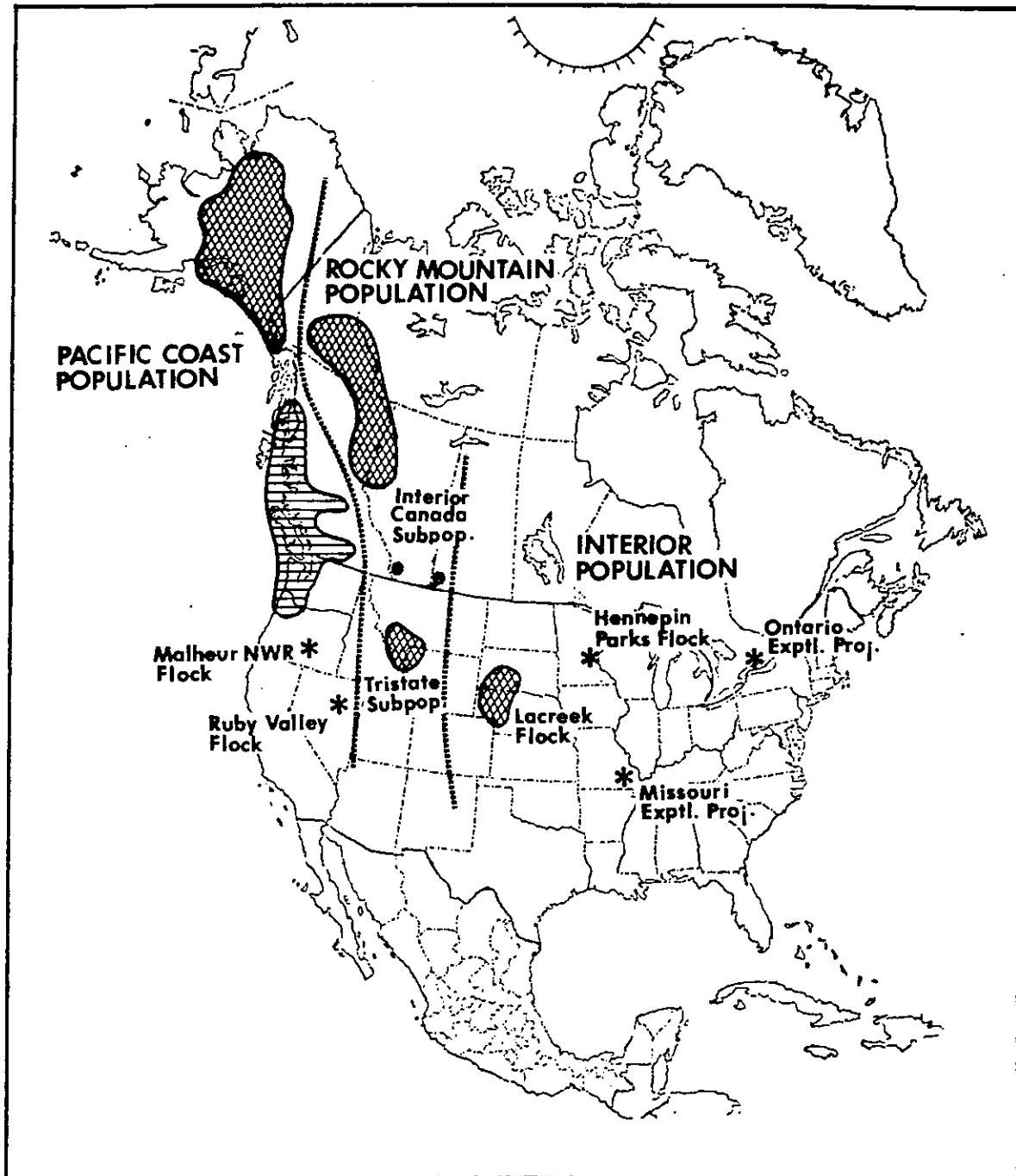


Figure 1. General breeding-summering ranges of the Pacific Coast, Rocky Mountain, and Interior Populations of trumpeter swans are shown in cross hatching. The winter range of the Pacific Coast Population is shown in horizontal hatching. The Interior Canada Subpopulation winters with the Tristate Subpopulation. The Tristate Subpopulation, all flocks, and swans of all experimental projects winter more-or-less in the place that they summer.